

# TOP 4 TECHNIQUES TO IMPROVE YOUR CONSTRUCTION FORECASTING ACCURACY

As a construction professional, you are already aware of the crucial role accurate forecasting plays in your capital projects and programs. After all, it's part of your daily world.

A well-executed forecast can:

- Protect funds and guard against lost revenue
- Ensure compliance with protocols and contractual requirements
- Give you greater control over delivery costs and project payments
- Help you achieve higher levels of project certainty for all stakeholders

Yet it can be difficult to deliver an accurate forecast.

At InEight, our goal is to give you the insights you need to forecast with the highest level of confidence.

With this in mind, we've narrowed down the top four goals to aim for, and what you will need to achieve them.

Let's dig in!

# WHAT IS FORECASTING AND WHO RELIES ON IT?

Put simply, forecasting is the process of using historical data to predict future events. Sounds easy, but short of a crystal ball, there's more to it than meets the eye, and what's at stake depends on your role.

In truth, everyone on a construction project uses some element of forecasting, whether dealing with cost or revenue, scope or duration, or labor and resource allocation. The key to success they all share? Forecasting that comes from benchmarking past projects and catching issues early on so you have time to readjust your plans in a proactive and not reactive way.

## YOUR TOP 4 TECHNIQUES



# 1. LOOK IN THE REARVIEW MIRROR

Before we start a project, how do we forecast what it's going to cost? We must rely on the estimate because the estimate is our baseline forecast, and because *we don't know what we don't know*. This means that we need to look to the past first.

For example, consider this scenario. Maybe you have three cast-in-place box culverts spread across the duration of a project and you complete the first box culvert 10% over the original estimated budget. It might be safe to assume that the other two are going to also be 10% over budget just based on lessons learned. Therefore, you should consider manually forecasting the other two box culverts to be 10% over budget *before* you start those operations, then adjust as the work commences.

In addition to utilizing current project data, having an integrated platform also allows you to reference productivity outputs across the organization. When consistent coding structures are implemented across the organization, it is easy to see as-built trends (via dashboards and reports) for similar scope items across numerous projects. Then, utilize those trends to create initial forecasts for scope that hasn't begun on your current project.



## 2. REALIZE THAT DATA DOESN'T LIE

We must also look ourselves straight in the face. For example, if you were budgeting or estimating that it was going to take five work-hours per linear foot of pipe install and halfway through the operation, you're spending 10 work-hours per linear foot — that may be concerning. You can't let optimism bias shape your decisions, and simply assume everything will get better. The *data doesn't lie*, so you must use those trends as you see them come up and forecast around them to give you the most accurate picture. Furthermore, having the data is only beneficial if you can make sense of it. Typically, only knowing to-date unit rates doesn't provide the complete picture when you want to drive an accurate estimate to a complete forecast.

When operations begin, crews are faced with learning curves and a period when productivity is typically worse than when the crew is progressing at full speed. To better understand this, in-app trend charts and filterable actuals allow you to see how these learning curves affect the unit rates. In addition, forecast methods that allow you to filter out learning curves and only apply current unit rate trends help to provide much more accurate estimate to complete forecast values.

## 3. ACCOUNT FOR THE FUTURE

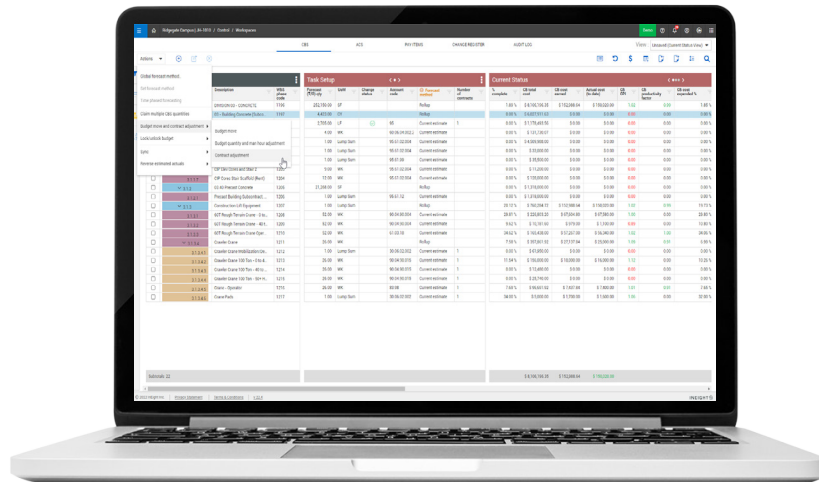
As we look ahead, there is always much to think about. For instance, we must consider labor cost escalations year-over-year due to union agreements, which means you need to ensure you're accounting for that additional cost in the future before it even happens. Or, you may be working in Northern Alberta, Canada, for instance, and have a winter shutdown on your job for the months of December and January.

You must take that into account for your time-phased forecasts and spread that cost into the remaining months. Having a solution that allows for precise time phasing is something that InEight is looking forward to on the near horizon. It will enable more accurate earned value curves that paint a complete picture of where project costs are heading.

# 4. GO FOR REAL-TIME INTEGRATION FEATURES FOR YOUR BEST FORECASTING OUTCOMES

When you're talking about integrations, timing is everything. Having the ability to integrate scope, cost, and schedules in real-time provides project stakeholders with the information they need to make timely decisions. With integrations such as those within InEight's platform, you will have better visibility into the scope of the project, timely cost data, and control over your planning process.

To help outline what this means and how it works, let's highlight a few of the solutions that can help you achieve your best forecasts.



**InEight Control** consumes both internal and external data to generate accurate forecasts. Knowing your “at completion” spend is only half of the story, so InEight Control offers time-phased forecasts. Time phasing allows projects to forecast monthly values so that projects can see trends and identify issues early in the project life cycle. This allows the project teams to adjust the plan earlier in the operation before it's too late — and significantly more expensive.

How can you forecast what you're going to spend if you don't know what the total scope is? It's impossible. This is why **InEight Design** offers scope in terms of quantities. As design quantities get updated and released as issued for construction (IFC), you can see that and make sure you're forecasting based on the latest and greatest updated quantities.

Knowing the scope is great, but you'll also need to know what you've spent. Within **InEight Progress**, there is a feature called "estimated actuals." If that's enabled, you can get work-hours and the corresponding costs from the daily plan as soon as they're approved. With estimated actuals, you'll automatically get to-date spend after the daily plans are approved.

Some change orders carry a lot of cost impact, so you don't want to leave them out of your forecast. Project managers and key stakeholders hate to see big swings in forecasts. Therefore, you always want to account for your cost as soon as possible or as soon as it's realized. Through **InEight Change**, you can do that. But what if your client takes weeks or months to approve change orders? Without an approved budget, you can't factor it into your forecast. Now, with InEight Change, you can include pending change orders to make sure you are capturing that scope in your final forecast.

Within **InEight Contract**, you can capture the committed costs from your contracts. Then, as purchase orders are updated or created, you can move that cost directly into InEight Control. You can also get timely actuals from Contract, so you're not waiting for your ERP to post those costs. You can simply sync them with InEight Control. Most importantly, and probably one of the biggest innovations, is schedule of value quantities. This allows you to track subcontracts the same way you do your self-perform work. You're tracking deliverables and discreet quantities to drive an accurate percent complete, which ultimately drives your earned value and gives you the ability to see what your remaining scope and cost are, allowing you to forecast more accurately.

Within **InEight Report**, everything up to this point can be pulled into reports and dashboards so all key stakeholders have visibility into a project's financial status. What's my forecast gain/loss? How has my forecast changed month over month? Getting answers to questions like these for users who want to get reports and simply analyze them when they see these trends can be done quickly and easily.

# A WORD ABOUT COMMUNICATION AND COLLABORATION

While you may rely on a report to be sent to all key stakeholders before collaborating, you can also improve your communication and collaboration efforts by having the option to collaborate directly with InEight Control.

To accomplish this, InEight offers what is called a **shared forecast** or a **sandbox forecast**. It works by giving you the ability to create best-case and worst-case scenarios. You can also collaborate on “what-if” situations, analyze the data and communicate with other disciplines and stakeholders on the project to determine the most accurate forecast. Once everyone agrees, you simply push that over to the live forecast and you’re ready to go.

And while this might seem like a minor point to some, you’ll also want to look for **enhanced forecast notes**. Early on, it was common to have a dialogue that something had changed, but it was always difficult to capture what *exactly* had changed. With enhanced notes, you’ll not only be able to describe or document *why* something changed, but also *what* has changed.

## CONCLUSION

We all wish we had that crystal ball to help us forecast and predict the future, but we don’t. What we *do* have, however, are lessons learned, trends, and timely data and integrated processes to help facilitate accurate forecast projections. You can leverage all of these through the advanced solutions provided by InEight.



### About InEight

InEight provides field-tested project management software for the owners, contractors, engineers and architects who are building the world around us. Over 575,000 users and more than 850 customers worldwide rely on InEight for real-time insights that help manage risk and keep projects on schedule and under budget across the entire life cycle. From pre-planning to design, from estimating to scheduling, and from field execution to turnover, InEight has powered more than \$1 trillion in projects globally across infrastructure, public sector, renewable energy and power, oil, gas and chemical, mining, and commercial. For more information visit **InEight.com**.